AMENDMENTS

   This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (*Currently Amended*) A focus detection device comprising:

   a solid-state image sensing device including a first photoelectric conversion element array which photoelectrically converts a first light beam passing through a first area of an exit pupil of a photographing optical system, and a second photoelectric conversion element array which photoelectrically converts a second light beam passing through a second area of the exit pupil which is different from the first area,

   wherein every two photoelectric conversion elements of said first and second photoelectric conversion element arrays include a microlens positioned such that the first light beam passing through the first area of the exit pupil and the second light beam passing through the second area of the exit pupil focuses on a first and a second photoelectric conversion element respectively; and

   a computing device which detects a focus state of the photographing optical system by computing a correlation between a first shading-corrected image signal which is an image signal from the first photoelectric conversion element array and a second shading-corrected image signal which is an image signal from the second photoelectric conversion element array in accordance with a position of a focus detection area in an image sensing frame on the basis of a ratio between a shift amount of a focus detection opening pupil from an optical axis, caused by being limited by an exit window of the photographing optical system, and a width of the focus detection opening pupil.

2. (*Currently Amended*) A focus detection method ~~wherein~~ comprising:

   detecting a first light beam passing through a first area of an exit pupil of a photographing optical system which is photoelectrically converted by a first photoelectric conversion element array, and a second light beam passing through a second area of the

exit pupil which is different from the first area which is photoelectrically converted by a second photoelectric conversion element array,

wherein every two photoelectric conversion elements of said first and second photoelectric conversion element arrays include a microlens positioned such that the first light beam passing through the first area of the exit pupil and the second light beam passing through the second area of the exit pupil focuses on a first and a second photoelectric conversion element respectively; and

calculating a focus state of the photographing optical system is detected by computing a correlation between a first shading-corrected image signal which is an image signal from the first photoelectric conversion element array and a second shading-corrected image signal which is an image signal from the second photoelectric conversion element array in accordance with a position of a focus detection area in an image sensing frame on the basis of a ratio between a shift amount of a focus detection opening pupil, formed when limitation is imposed by an exit window of the photographing optical system, with respect to an optical axis, and a width of the focus detection opening pupil.

3.   (*Previously Presented*) A computer program recorded on a computer-readable medium for causing a computer to execute the focus detection method recited in claim 2.

4.   (*Cancelled*).

5.   (*Previously Presented*) The device of claim 1, wherein information utilized to create the shading-corrected image signal is obtained from a digital memory in a photographing lens.